## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 29 September 2005 (29.09.2005)

**PCT** 

## (10) International Publication Number WO 2005/090711 A1

(51) International Patent Classification<sup>7</sup>: 21/14, E04H 5/00, 5/02, G09B 29/00

E04G 21/00,

(21) International Application Number:

PCT/AU2005/000389

(22) International Filing Date: 17 March 2005 (17.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2004901418 17 March 2004 (17.03.2004) AU

(71) Applicant (for all designated States except US): TECHNOLOGICAL RESOURCES PTY LIMITED [AU/AU]; 55 Collins Street, Melbourne, VIC 3000 (AU).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): IONS, Philip, James [AU/AU]; 18A Moness St, Shelley, W.A. 6148 (AU).
- (74) Agent: GRIFFITH HACK; Level 3, 509 St Kilda Road, Melbourne, VIC 3004 (AU).

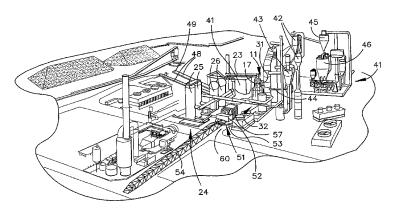
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## **Published:**

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## (54) Title: METHOD OF BUILDING A DIRECT SMELTING PLANT



(57) Abstract: Method of building a direct smelting plant comprising a metal smelting vessel (11) and ancillary plant components such as the components of a hot air supply station (24), an offgas treatment station (32), a solids feed station (41), a hot metal desulphurization station (47) and hot metal and slag launders extending from the smelting vessel (11). The ring track (53) of a ringer crane (51) is installed in front of location at which vessel (11) is to be installed. Crane boom (54) is laid out along elongate stretch of the building site which becomes a corridor (60) between major ancillary components when plant is fully erected. Boom (54) is connected to crane carriage (52) and hoisted to provide high lift capacity over a ground area embracing proposed site of vessel (11) and ancillary components. Prefabricated components are then lifted by crane (51) into appropriate position for final installation. After installation is completed boom (54) is laid down along corridor (60) and crane (51) is dismantled and removed, leaving corridor (60) as an access laneway.

